



IAEA
International Atomic Energy Agency

JOB DESCRIPTION / VACANCY NOTICE

NO: 2006/999

Position and Grade: Senior Safeguards Technology Analyst (P-5)

Organizational Unit: Information Analysis Unit
Section for Information Collection and Analysis
Division of Information Management
Department of Safeguards

Duty Station: Vienna

Issue Date:

Application Deadline:

Type/Duration of Appointment:

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DATE: SEP 18 2003

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Organizational Setting *Structure and objectives of the concerned Division / Section / Unit. Identify the reporting relationship of the post*

The Division of Information Management (SGIM) comprises of four sections and provides the Department of Safeguards with services of data processing, secure information distribution, information analysis and knowledge generation necessary to draw independent, impartial and credible safeguards conclusions.

The Section for Information Collection and Analysis (ICA) contributes to the all-sources information analysis necessary for the Agency to produce credible conclusions, as required, concerning the compliance of States with their Safeguards obligations. ICA participates in the review and definition of processes and technologies for information collection, processing, dissemination, and analysis in support of the State evaluation process. It assists in defining information collection and analysis processes and the assessment of relevant tools and systems. Within this Section:

The Information Analysis Unit (IAU) has the responsibilities in relation to State evaluation. Collecting and analyzing on a continuous basis of open source information relevant to the evaluation of States; Disseminating information of relevance to counterparts in Operations Divisions and other departmental counterparts in a timely manner; Consolidating and participating in the all-sources analysis of information coming from open sources, including inspections, environmental sampling, NMA. IAU are responsible for the preparation of all-source analysis reports on a regular basis as input to the State evaluation process, and also on topical, developments of significance; IAU staff are liaising closely with Country Officers and Senior Inspectors on a regular basis.

Main Purpose *(Contribution to the Programmatic Objectives)*

The Senior Safeguards Technology Analyst will contribute to the Agency's nuclear verification mission by conducting technical and safeguards analyses using all sources of information available to the Department of Safeguards. These analyses will be incorporated into annual State Evaluation Reports which form the basis for the Safeguards Implementation Report (SIR). The SIR is submitted to the Agency's Board of Governors and therefore must be based on reports and analyses of the highest professional standard. Analytical reports prepared by the Senior Information Analyst may also be used to support inspections and complementary accesses.

Role *(Team Leader / Advisor / Expert / etc.)*

The Senior Safeguards Technology Analyst will lead, or participate in, analytical project teams comprised of staff members from SGIM and other Divisions. These project teams will review diverse sources of information, including open sources, state declared information, satellite imagery, and environmental sampling results in order to produce analytical reports to support the nuclear verification mission.

The Senior Safeguards Technology Analyst will also work with other members of the Department to further develop analytical skills and methodologies, including participating in Departmental training programmes. As part of the Department's analytical community, the incumbent will be called upon to apply her/his extensive technical knowledge and experience to a wide range of analytical problems and challenges.

Partnerships *Partnerships and relationships required (Type: stakeholders and clients, colleagues and collaborators, sponsors and competitors, etc.; Purpose: to consult, advocate, promote, motivate, advise, provide authoritative guidance, etc.)*

The Senior Safeguards Information Analyst will develop working partnerships and collaborations across the Department and throughout the Agency. The incumbent will work especially closely with other members of the Section and with staff of the Operations Divisions to define analytical tasks and carry out analytical projects. She/he will also liaise with other Departments on technical issues and to obtain relevant information. The ability to collaborate with staff members with diverse professional and national backgrounds, and to integrate their inputs into a final analytical product is of the highest importance. The Senior Information Analyst must also be able to interact effectively with representatives of member states.

Functions / Key Results Expected *Five to six statements, concentrating on deliverables rather than process. Only include functions estimated to require at least 10% of time— "other duties as assigned" applies to all jobs, and generally requires less than 10% of time. Ensure that the job functions describe the contribution of the post to programme objectives. Begin each sentence with an action verb.*

- Will develop and implement a new scientific and technical information review process that will provide regular updates to the Department on technical developments of Safeguards or non-proliferation interest.
- Produces reports that incorporate in-depth analysis of all forms of information available to the Department of Safeguards in support of the Agency's nuclear verification mission. The analysis will include detailed analysis of relevant scientific and technical literature, and comparison of this information with state declared information, environmental sampling results, and commercial satellite imagery. Special attention will be paid to whether there are indications of diversion of nuclear material or the presence of undeclared nuclear materials or facilities.
- Contributes to the State Evaluation process by determining if there are indicators of proliferation or non-compliance with safeguards agreements. This requires expertise in proliferation-sensitive technologies, especially reprocessing and enrichment, and knowledge of proliferation indicators. The Senior Information Analyst will participate in State Evaluation Working Groups and will contribute to the drafting of State Evaluation Reports.
- Leads or participates in analytical teams comprised of members of SGIT, SGCP and the Safeguards Operations Divisions. These teams will focus on solving particular analytical problems and will integrate diverse information sets and analytical perspectives.
- Trains, guides and directs other IAU staff in the collection and analysis of scientific and technical information pertinent to the nuclear fuel cycle and to proliferation pathways. This will be done through formal training sessions on specific technologies as well as informal mentoring of Unit staff.
- Works with technical consultants on analytical projects. Reviews and evaluates the work of consultants and finalizes their reports for distribution to the Operations Divisions and other customers within the Agency.
- Plays an active role in evaluating, selecting, testing, and implementing advanced analytical software tools for the Department of Safeguards. Participates in planning meetings and evaluation programmes for analytical software tools.

Knowledge, Skills and Abilities

- Excellent analytical skills and extensive experience in applying those skills to non-proliferation and safeguards analysis.
- In-depth knowledge of the nuclear fuel cycle, with special emphasis on nuclear proliferation pathways and proliferation indicators.
- Strong background in scientific and technical analysis should be complemented by the ability to incorporate the results of environmental sampling and commercial satellite imagery analysis into an integrated analytical product.
- Familiarity with dual-use technologies relevant to nuclear non-proliferation, the potential applicability of nuclear research to nuclear weapons development, and delivery systems is highly desirable.
- Knowledge of the concepts of strengthened safeguards and the process of additional protocol evaluation is also highly desirable.
- Strong information collection skills, including familiarity with the use of scientific and technical literature databases.
- Experience in the management of interdisciplinary teams would be an asset.

Education, Experience and Language Skills

- Advanced university degree, or equivalent, in Physics, Chemistry, Nuclear Science, Nuclear Engineering, or related scientific and engineering fields.
- At least 10 years of experience in non-proliferation or safeguards analysis, with a demonstrated ability to produce analytical reports.
- Expert knowledge of nuclear fuel cycle activities, especially in the area of enrichment, reprocessing, and proliferation-sensitive technologies. In-depth understanding of the technical aspects of nuclear proliferation, including dual-use technologies, proliferation pathways, and indicators.
- Excellent analytical skills and experience, and the ability to identify interrelationships in information relevant to nuclear proliferation.
- Familiarity with the results of environmental sampling and commercial satellite imagery analysis, and the ability to integrate these

analyses into a final analytical report.

- Ability to maintain the confidentiality of data in conformity with the Agency's security policy.
- Demonstrated ability to exercise diplomatic and prudent judgement on sensitive issues.
- Demonstrated ability to produce reports in technical English to a high standard.
- Fluency in English essential. Knowledge of Arabic, Chinese, French, Russian or Spanish desirable (depending on the region assigned).